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Interagency TEAMS Effort to Tackle Federal Talent Management Challenges

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Rebecca Hoag | September 14, 2021

The stars may be aligning for an ambitious effort in workforce management called the Talent Education and Assessment Management System, or TEAMS. Developed in part by NPS experts in collaboration with the Central Coast NavalX Tech Bridge, TEAMS is designed to assess the current talent available in a workforce, identify gaps, and develop a pathway of learning to fill them.

The federal government has a problem. More than half of its defense acquisition employees are currently within 10 years of retirement age, according to a **2019 Navy report** … This means there needs to be a massive knowledge shift to the rest of the workforce fast.

Responding to this need, the Naval Postgraduate School’s (NPS) Associate Dean of Research for Technology Development Chris Manuel is collaborating with the Department of Veterans Affairs (VA) through Tony Boese, VA Interagency Program Manager, and Harvard University’s Adam Wood to create and integrate a system-of-systems called the Talent Education and Assessment Management System (TEAMS), an effort of the National Artificial Intelligence Institute’s workforce development program.

TEAMS will assess the current knowledge level of the workforce and provide meaningful feedback to leadership about the capabilities and gaps within their ranks. Pairing this with Learning and Development System (LDS) will provide access to timely and efficient knowledge acquisition.

A key component of TEAMS is its Computer Adaptive Assessment which determines what the user already knows and finds where their gaps in knowledge are and how large they are. This will help to determine if it is beneficial for an employee to fill in the knowledge gaps, or if the gaps are too large and someone new should be hired for the job. This can be particularly useful if an agency is determining whether to invest in higher security clearances for employees to fill in a gap or not.

If upskilling is preferred, the assessment will inform the placement of a learner on a personalized learning pathway. Additionally, to ensure timely and efficient knowledge acquisition, the personalized educational platform breaks down academic topics to the granular level. The TEAMS LDS is based on a personalized and adaptive learning platform, CHUNK Learning. CHUNK was developed at NPS has been developed under the leadership of Professor of Applied Mathematics, Dr. Ralucca Gera, retired U.S. Army Lt. Col. Michelle Isenhour, and faculty associate D'Marie Bartolf.

"We were seeking an environment that is respectful for every learner's time, that is personalized and individualized and supportive of every learner's individuality," Gera says.

CHUNK Learning is a prototype used to improve the individual education experience at NPS. It has been used in several classes with successful results. Expanding this technique to a broader naval purpose, TEAMS will use artificial intelligence (AI) as the first knowledge domain tested because it is an emerging and in-demand industry.

"The TEAMS pilot will provide the opportunity to build out an architecture for a learning platform that addresses the Navy's desire for relevant learning," Bartolf explains.

NPS provides an ideal backdrop to create this assessment and academic platform because there are so many subject matter experts on a university campus.

While the creation of this learning platform is in Gera and Bartolf's area of expertise, legal and acquisition blocks slowed down initial collaboration efforts. This is where Chris Manuel and the NavalX Central Coast (C2) Tech Bridge have been pivotal to the project. In fact, Gera said she was ready to turn her focus strictly to teaching until the Tech Bridge got involved.

"There's so much capability that doesn't get out of these gates around campus," Manuel says. "We're trying to identify those and create a path for developing the technology to where it actually gets out, so people can see the great work that goes on [here]."

Manuel advertised their project to the NavalX Tech Bridge Director Whitney Tallarico, who immediately saw its potential to help with training throughout Naval institutions.

“I see it as a sustainment factor for a lot of the learning we’re trying to build into talent acquisition,” Tallarico says. “If we do TEAMS right, it’ll remove the reliance on people to be the connectors, which is very exciting.”

The project became a NavalX strategic project, allowing the project to grow and the team to utilize other technologies and resources within the NavalX network. For example, the Central Florida Tech Bridge is helping with the systems approach for the network because they hold a focus on large virtual education systems.

TEAMS has gained a lot of support throughout the DOD with the help of Tallarico and Harvard University collaborator, Wood, who advertised the project to government stakeholders via interagency working groups. The work leverages efforts from Veterans Affairs (VA), Office of the Director of National Intelligence (ODNI) and the General Services Administration (GSA), among others.

The VA has been particularly invested in spearheading work to move the project forward and to synergize with efforts underway in its National Artificial Intelligence Institute (NAII), headed by Dr. Gil Alterovitz. The office is working to provide access to a large pool of subject matter experts and the participation of veterans in designing a system their active-duty colleagues can use.

“We’re the best way to get thousands of diverse, informed, and engaged eyes on something to vet and inform the ultimate user experience,” says Boese.

With many government agencies waiting excitedly on the sidelines, Gera, Bartolf, and others are hard at work developing the system requirements and expecting initial funding to arrive this month.

“I believe and hope that this will be a wonderful platform that provides this dynamic environment for assessing and then building on the assessment for the delivery of personalized knowledge that really engages the learner,” Gera says.

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